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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,095	06/25/2003	Matthias Krull	2000DE441/D	4206

25255 7590 06/15/2007

CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER	
TOOMER, CEPHIA D	
ART UNIT	**PAPER NUMBER**
1714	

MAIL DATE	DELIVERY MODE
06/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,095	KRULL ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7 and 11-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7 and 11-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the amendment filed April 2, 2007.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 11 has been amended to recite that the additive is combined with the fuel at a temperature of 0 °C or below. The specification does not support this language. The passages at paragraphs [0009] and [0012] refer to the effective temperature range of the additive and not to the temperature at which the additive and fuel are combined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11001692 in view of Krull (US 5,391,632).

JP teaches a low sulfur middle distillate fuel oil comprising less than 0.2 wt % sulfur. The fuel oil contains from 0.001-0.5 wt % of a C_8-C_{30} fatty acid mixture which contains unsaturated fatty acids having a single double bond and a fatty acid containing two double bonds and other additives such as flow improvers. The acids are used in a ratio of 1:3 to 15:1 (see claim 1). At paragraphs 16 and 17, JP teaches adding saturated fatty acids and resin acids to the mixture. JP teaches the use of nitrogen-containing compounds (amides/salts) that function as cold temperature fluidity improvers (paraffin dispersants) at a ratio of 1:10-5:1(see paragraphs 0019-0020). The fluidity improvers also include copolymers such as ethylene vinyl esters. JP also teaches that the fuel additive may be prepared as a concentrate containing 20 to 80% by weight solvent (see paragraph 24). JP teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, JP differs from the claims in that it does not specifically teach the claimed polar nitrogen-containing compound. However, Krull teaches this difference.

Krull teaches terpolymers based on unsaturated dicarboxylic anhydrides, bivalent compounds and polyoxyalkylene ethers. These terpolymers are the same as those of the instant claims (see col. 2, lines 34-68; col. 3, lines 1-68; col. 4, lines 1-35). Krull teaches that the terpolymers are used as paraffin inhibitors in crude oils and petroleum

products such as middle distillates (see col. 9, lines 19-26). The terpolymers are used in an amount from 10-10,000 ppm (see col. 9, lines 32-35).

It would have been obvious to one of ordinary skill in the art to add the paraffin dispersant of Krull with those of JP because Krull teaches that combining the nitrogen-containing compounds of his invention with other cold temperature fluidity improvers, such as those set forth in JP result in paraffin crystals that precipitate on cooling and remaining dispersed (see col. 2, lines 21-32; col. 9, lines 44-65).

In the second aspect, JP differs from the claims in that it does not specifically teach the iodine number of the fatty acid mixture. However, since the fuel additive of JP comprises a major amount of unsaturated acids it would be reasonable to expect that the iodine number of the fatty acid mixture would be at least 40 g of I/100g, absent evidence to the contrary.

Response to Arguments

5. Applicant's arguments have been fully considered but they are not persuasive.

Applicant's arguments and declaration have been considered but are not deemed persuasive.

JP teaches that the fatty acid mixture of its invention may be combined with a cold flow improver. Applicant's data show that the fatty acid mixture in combination with the flow improvers of JP produce results that are not as desirable as those wherein the fatty acid is combined with the polar nitrogen-containing compound. Applicant's data bolsters the examiner's position because Krull teaches that when his nitrogen-

containing compound is combined with cold flow improvers such as those taught by JP that improved cold flow properties are obtained. Therefore, the skilled artisan having JP and Krull before him/her would be motivated to combine the references in order to obtain a cold flow additive that would impart lubricity properties as well as improved cold flow properties to a middle distillate fuel composition.

With respect to JP not teaching the claimed iodine number, JP teaches that at least 75 wt% of the fatty acid mixture is comprised of unsaturated acids. Applicant teaches that 1-99 wt % of his fatty acid mixture is unsaturated acids. Therefore, if the claimed range produces an acid mixture having an iodine number of at least 40 g I/100g then clearly JP would meet this limitation.

JP discusses storage stability of the composition and that the fuel additives may be prepared as a concentrate. JP teaches that there is no limitation to the methods for compounding the fatty acid mixtures with the additives, however, in the case of compounding low-temperature flow improvers, it is preferable to dissolve the fatty acid mixtures and the low-temperature flow improving agents in suitable solvents followed by adding them to the fuel.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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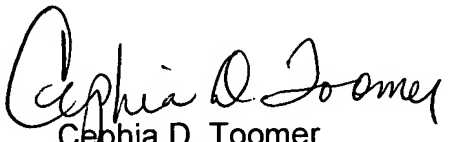

Cephia D. Toomer
Primary Examiner
Art Unit 1714

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